

**Appl. No. 10/799,800
Amendment and/or Response
Reply to Office action of 19 April 2005**

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Amendments to the Drawing Figures:

The attached drawing sheet includes proposed changes to FIG. 1, and adds FIG. 9; this sheet replaces the original sheet including FIGs. 1 and 2.

Attachment: Replacement Sheet(s)

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REMARKS / DISCUSSION OF ISSUES

Claims 11-30 are pending in the application. Claims 11-14, 17-18, 21-24, and 27-28 are currently under consideration.

The applicants respectfully request the Examiner to acknowledge the claim for priority and receipt of certified copies of all the priority document(s).

The Office action rejects claims for double patenting over claims of U.S. Pat. No. 6,731,360. As suggested by the Examiner, a Terminal Disclaimer is filed herewith to obviate the double patenting rejection. Accordingly, withdrawal of the rejection of claims is respectfully requested.

The Office action objects to the drawings. The drawings are amended herein, and the specification is correspondingly amended. The applicants note that no new matter is added, because a patterned retardation layer with different planar orientations is clearly described in the specification as originally filed.

The Office action rejects claims 11-14 and 21-24 under 35 U.S.C. 102(b) over Kubo et al. (USP 6,295,109, hereinafter Kubo). The applicants respectfully traverse this rejection.

The Examiner's attention is requested to MPEP 2131, wherein it is stated:

"A claim is anticipated only if **each and every element** as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "The **identical invention** must be shown in as **complete detail** as is contained in the ... claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Each of independent claims 11 and 21 specifically include a patterned optical layer that includes first area segments that provide a first optical retardation and second area segments that provide a second optical retardation.

Kubo does not teach a patterned optical layer that includes first area segments that provide a first optical retardation and second area segments that provide a second optical retardation. The Office action cites Kubo's transmissive electrode

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regions (T) and reflective electrode regions (R) as corresponding to the applicants' first and second area segments. The applicants note, however, that these electrode regions do not provide first and second optical retardations, as specifically claimed by the applicants. Kubo's layers 7 and 10 provide quarter-wave optical retardation, but neither layer 7 nor layer 10 is patterned to provide areas of different retardations.

Because Kubo does not teach a patterned optical layer that includes first area segments that provide a first optical retardation and second area segments that provide a second optical retardation, as specifically claimed, the applicants respectfully request the Examiner's reconsideration of the rejection of claims 11-14 and 21-24 under 35 U.S.C. 102(b) over Kubo.

The Office action rejects claims 11, 17, 21, and 27 under 35 U.S.C. 102(b) over Yoshida et al. (USPA 2002/0047968, hereinafter Yoshida). The applicants respectfully traverse this rejection.

Claims 11 and 21 specifically claim a patterned optical layer that includes first area segments that provide a first optical retardation and second area segments that provide a second optical retardation, wherein the second optical retardation is substantially less than the first optical retardation.

Yoshida teaches an LCD display wherein the liquid crystal layer 120 has first and second regions 102a, 102b in each pixel area that have orientation-axis directions that differ by 180° ($\pm 10^\circ$). As is well known in the art, regions of liquid crystal material that are oriented in parallel but opposite directions are substantially identical. Yoshida discusses this at paragraph [0044], and states:

"However, since the respective orientation-axis directions (corresponding to the slow axes) of the liquid crystal regions 102a and 102b are approximately parallel with each other ($180^\circ \pm 10^\circ$), the liquid crystal regions 102a and 102b exhibit a uniaxial optical anisotropy. Accordingly, the first phase compensation element having a slow axis within the plane parallel with the liquid crystal layer 120 and arranged such that the slow axis is approximately perpendicular to the respective orientation-axis directions of the first and second liquid crystal regions can effectively compensate for the optical anisotropy (retardation) of the liquid crystal layer 120."

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The applicants note Yoshida's use of the singular noun form with regard to "the" optical retardation of the liquid crystal layer 120 that includes the parallel oriented regions 102a and 102b.

Yoshida uses opposite but parallel oriented regions 102a and 102b to compensate for a "residual retardation" that is not fully compensated by the phase compensation layer 103. Again, at paragraphs [0042] and [0043], Yoshida uses the singular noun form with regard to "the" residual retardation of the liquid crystal regions 102a and 102b, and uses a layer 103 of uniform retardation to provide this compensation. The applicants respectfully note that if, as the Office action asserts, the retardation of regions 102a and 102b of Yoshida are substantially different, a layer of uniform retardation could not be used to compensate for the residual retardation produced at the orientating-surface of the liquid crystal layer.

As taught by Yoshida in paragraph [0061], the regions 102a and 102b have different "apparent residual retardations" when viewed obliquely during application of an electric field. The applicants respectfully note that the optical retardation of a layer is defined as the retardation in a direction perpendicular to the layer, thus the use of the term "apparent residual retardation" in Yoshida when referring to the retardation of the layer in a direction oblique to the layer. All retardation layers will exhibit angle-dependent variations in retardation, and thus, absent statements to the contrary, the definition of a layer's retardation must be defined relative to an assumed normally-incident light beam to be meaningful.

The applicants claim a different retardation of each region, and not a different "apparent residual retardation" as provided by Yoshida's regions 102a and 102b when viewed obliquely. Further, assuming in argument that Yoshida's "apparent residual retardation" may be interpreted to correspond to the applicants claimed first and second retardations of each segment, one cannot state that the apparent residual retardation of one of the segments is substantially less than the apparent residual retardation of the other segment, as specifically claimed by the applicants, because Yoshida's apparent residual retardation of each of the regions 102a and 102b varies as a function of the viewing angle. At some oblique angles, the apparent residual retardation of 102a will be greater than the apparent residual retardation of

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102b, and at other oblique angles, the apparent retardation of 102a will be less than the apparent residual retardation of 102b.

Because Yoshida does not teach a patterned optical layer that includes first area segments that provide a first optical retardation and second area segments that provide a second optical retardation, wherein the second optical retardation is substantially less than the first optical retardation, as specifically claimed in each of claims 11 and 21, upon which claims 17 and 27 depend, the applicants respectfully maintain that claims 11, 17, 21, and 27 are patentable under 35 U.S.C. 102(e) over Yoshida.

Further, with respect to claims 17 and 27, each of these claims specifies that the first and second area segments include polymerized liquid crystal material. Because Yoshida's liquid crystal layer 120 having segments 102a and 102b is the "active" layer, that is configured to change state based on the applied voltage, it cannot be polymerized liquid crystal material, because polymerized liquid crystal material cannot change state from its polymerized state.

Because Yoshida does not teach first and second area segments that include polymerized liquid crystal material, as specifically claimed in claims 17 and 27, the applicants respectfully maintain that claims 17 and 27 are patentable under 35 U.S.C. 102(e) over Yoshida.

The Office action rejects claims 18 and 28 under 35 U.S.C. 103(a) over Yoshida and Ham (USP 6,184,961). The applicants respectfully traverse this rejection, based on the remarks above regarding claims 17 and 27, upon which claims 18 and 28 depend, with regard to Yoshida.

As noted above, claims 17 and 27 claim first and second area segments that include polymerized liquid crystal material. Yoshida's segments 102a, 102b, and Ham's segments I and II, comprise liquid crystal material that is configured to change state (from transparent to opaque) depending upon the voltage applied to the material. Polymerized liquid crystal material, as claimed, cannot change state, and thus would render both Yoshida's device and Ham's device, or a combination of both, unsuitable for their intended purpose.

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Because neither Yoshida nor Ham, individually or collectively, teach or suggest first and second area segments that include polymerized liquid crystal material, as specifically claimed in claims 17 and 27, upon which claims 18 and 28 depend, the applicants respectfully maintain that claims 18 and 28 are patentable under 35 U.S.C. 103(a) over Yoshida and Ham.

In view of the foregoing, the applicants respectfully request that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance. If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted,



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